

3. Dennis

Program Name: Dennis.java

Input File: dennis.dat

Last winter on a very cold day Dennis was looking at the icicles hanging from the eave of his house and he began to wonder what words would look like if they were icicles. He got a piece of scratch paper and tried it out. He rewrote the words “house”, “winter” and “cold” as if they were icicles hanging from his house. It came out like this:

```
h w c
o i o
u n l
s t d
e e
r
```

As you can see, Dennis’ penmanship is quite poor. So, to make his word icicles look better, Dennis decides he needs a program to read his words and print the icicles.

Input: A file that contains several sets of words to be printed as if they were icicles. The first line will contain a value S that represents the number of sets of words followed by S sets of words. For each set there will be a line that contains a number N representing the number of words in the set followed by N words. There are no blank lines between sets of words.

Output: Each set of words printed side by side in columns spelled from the top down. There should be as many rows as there are characters in the longest word and no more. Any space in a column not taken up by a letter in a word must be a space character. Each set should be followed by a row of asterisks (*) exactly as wide as the number of columns used to display the set. There should not be any blank lines between the sets.

Sample input:

```
2
3
house
winter
cold
5
cat
turtle
aardvark
dog
fish
```

Sample output:

```
hwc
oio
unl
std
ee
r
***
ctadf
auaoi
trrgs
td h
lv
ea
r
k
*****
```